WHAT IS CLAIMED IS:

1. A method for processing signal strength information from a radio frequency transmitter comprising the steps of:

receiving signal strength information indicating a power for the radio frequency transmitter at one or more first locations;

receiving location information representing a geographic location for one or more second locations;

dividing the received signal strength information into one or more subsets of signal strength information;

determining, for each of the one or more subsets, a local mean such that the local mean represents an average for one of the one or more subsets; and

estimating a location for the local mean based on the received location information.

2. The method of claim 1 further comprising the step of:

determining at least one distance between one or more estimated locations for one or more local means.

3. The method of claim 2 further comprising the step of:

dividing the received signal strength information into one or more subsets based on the at least one distance.

4. The method of claim 3, wherein said step of dividing further comprises the step of:

determining the at least one distance based on a speed of a receiver.

5. The method of claim 4, further comprising the step of:

determining the at least one distance based on a speed of a receiver of the signal strength information.

6. The method of claim 2, further comprising the step of:

interpolating a local mean when the at least one distance exceeds a predetermined distance.

7. The method of 1, wherein said step of receiving location information further comprises the step of:

receiving location information for one or more second locations including one or more of the following: a latitude, a longitude, and at least one of a plurality of first time stamps from a receiver of global positioning system information.

8. The method of claim 7, wherein said step of receiving signal strength information further comprises the step of:

receiving said signal strength information as a set of signal strength data based on a signal trace.

9. The method of claim 8, further comprising the step of:

attaching at least one of a plurality of second time stamps to the set of signal strength data.

10. The method of claim 9, further comprising the step of:

smoothing the plurality of second time stamps based on the plurality of first time stamps.

11. The method of claim 10, wherein said smoothing further comprises the step of:

smoothing the plurality of second time stamps based on a slope for the plurality of first time stamps.

12. The method of claim 1, wherein said step of determining further comprises the step of:

determining a plurality of local means such that each local mean corresponds to one of the one or more subsets.

13. The method of claim 12, wherein said step of determining further comprises the step of:

averaging one or more of the plurality of local means to provide a window average.

14. The method of claim 13, wherein said step of averaging further comprises the step of:

determining a difference value based on one of the plurality of local means and the window average.

15. The method of claim 14, wherein said step of averaging further comprises the step of:

determining a plurality of difference values.

16. The method of claim 15, further comprising the step of:

calculating a standard deviation based on the plurality of difference values.

17. The method of claim 16, further comprising the step of:

determining a signal coverage at a location for a wireless device based on the following equation:

$$Cp(r) = \tfrac{1}{2} - erf\,\frac{w_t - LM(r)}{\sigma_{LM}}$$

wherein *r* represents the location, σ_{LM} represents the standard deviation, LM(r) represents the local mean corresponding to the location, w_t represents a service threshold for the wireless device, and erf is a normal distribution error function.

18. The method of claim 17, wherein said step of determining the signal coverage further comprises the step of:

defining the location as at least one of the one or more first locations.

19. The method of claim 1, further comprising the step of:

defining the one or more first locations as locations that differ from the one or more second locations.

20. A method for determining a signal coverage for a wireless device comprising the steps of:

receiving signal strength information for a signal;

receiving location information representing a geographic location for one or more first locations;

determining one or more local means based on the received signal strength information;

estimating one or more second locations for the one or more local means based on the one or more first locations;

transforming the one or more second locations into a route; and

calculating the signal coverage for the route based on a signal coverage for at least one of the one or more second locations.

21. The method of claim 20, wherein said step of calculating further comprises the step of:

calculating the signal coverage for the route based on the following equation:

$$R_{cp} = \frac{\sum_k C_p(k) \cdot \Delta(k)}{\sum_k \Delta(k)}$$

wherein $C_p(k)$ is the signal coverage at the one or more second locations, and $\Delta(k)$ is the relative distance between two of the one or more second locations.

22. The method of claim 20, further comprising the step of:

determining a standard deviation based on the received signal strength information.

23. The method of claim 22, wherein the step of determining the standard deviation further comprises:

determining the standard deviation based on one or more difference values, such that a difference value represents the difference between a local mean and a corresponding window average.

24. The method of claim 20, wherein said step of receiving location information further comprises the step of:

receiving the one or more first locations including one or more of the following: a plurality of latitudes, a plurality of longitudes, and at least one of a plurality of time stamps from a receiver of global positioning system information.

25. The method of claim 24, wherein said step of transforming further comprises the step of:

determining the route based on the plurality of latitudes and the plurality of longitudes; and

dividing the route into at least two segments based on the plurality of latitudes and the plurality of longitudes when the at least two segments exceed a route break distance.

26. The method of claim 25, wherein said step of determining the route further comprises the step of:

transforming the plurality of latitudes and the plurality of longitudes into the route such that the route includes one or more directions and one or more distances arranged to form the route.

27. The method of claim 22, wherein said step of determining the signal coverage along the route further comprises the step of:

determining the signal coverage at one of the one or more second locations based on the following equation:

$$Cp(r) = \tfrac{1}{2} - erf\,\frac{w_t - LM(r)}{\sigma_{LM}}$$

wherein r represents one of the one or more second locations, σ_{LM} represents the standard deviation, LM(r) represents a local mean corresponding to one of the one or more second locations, w_t represents a service threshold for the wireless device, and erf is a normal distribution error function.

28. A system for processing signal strength information from a radio frequency transmitter comprising:

means for receiving signal strength information indicating a power for the radio frequency transmitter at one or more first locations;

means for receiving location information representing a geographic location for one or more second locations;

means for dividing the received signal strength information into one or more subsets of signal strength information;

means for determining, for each of the one or more subsets, a local mean such that the local mean represents an average for one of the one or more subsets; and

means for estimating a location for the local mean based on the received location information.

29. The system of claim 28 further comprising:

means for determining at least one distance between one or more estimated locations for one or more local means.

30. A system for determining a signal coverage for a wireless device comprising:

means for receiving signal strength information for a signal;

means for receiving location information representing a geographic location for one or more first locations;

means for determining one or more local means based on the received signal strength information;

means for estimating one or more second locations for the one or more local means based on the one or more first locations;

means for transforming the one or more second locations into a route; and

means for calculating the signal coverage for the route based on a signal coverage for at least one of the one or more second locations.

31. The system of claim 30, wherein said means for calculating further comprises:

means for calculating the signal coverage for the route based on the following equation:

$$R_{cp} = \frac{\sum_k C_p(k) \cdot \Delta(k)}{\sum_k \Delta(k)}$$

wherein $C_p(k)$ is the signal coverage at the one or more second locations, and $\Delta(k)$ is the relative distance between two of the one or more second locations.

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32. A system for processing signal strength information from a radio frequency transmitter comprising:

at least one memory comprising:

code that receives signal strength information indicating a power for the radio frequency transmitter at one or more first locations,

code that receives location information representing a geographic location for one or more second locations,

code that divides the received signal strength information into one or more subsets of signal strength information, and

code that determines, for each of the one or more subsets, a local mean such that the local mean represents an average for one of the one or more subsets; and

at least one processor that executes said code.

33. A system for determining a signal coverage for a wireless device comprising:

at least one memory comprising:

code that receives signal strength information for a signal,

code that receives location information representing a geographic location for one or more first locations,

code that determines one or more local means based on the received signal strength information,

code that estimates one or more second locations for the one or more local means based on the one or more first locations,

code that transforms the one or more second locations into a route, and

code that calculates the signal coverage for the route based on a signal coverage for at least one of the one or more second locations; and

at least one processor that executes said code.